DRAFT ENVIRONMENTAL ASSESSMENT

WITH

UNSIGNED FINDING OF NO SIGNIFICANT IMPACT

SOUTH SHORE STATE PARK INTERNAL AND ACCESS ROAD IMPROVEMENTS

CARLYLE LAKE, ILLINOIS

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1.0 INTRODUCTION

This Environmental Assessment (EA) addresses the environmental impacts of the proposed improvements to the internal and access roads of South Shore State Park by the Illinois Department of Natural Resources as part of the operation and maintenance of their long-term lease with the U.S. Army Corps of Engineers, St. Louis District.

1.1. Project Location

Carlyle Lake was authorized in July 1958 and completed in June 1967. It is located approximately 50 miles due east of St. Louis, Missouri (see figure 1). It is 12 miles long and 1-3 miles wide and has approximately 26,000 acres of water surface at summer pool. Lake shoreline is 83 miles and there are approximately 11,000 acres of public land associated with the project. The Corps of Engineers and the Illinois Department of Natural Resources (IDNR) operate recreation areas and manage the public lands and fisheries of the lake.

South Shore State Park is a 305-acre State Park that is located on the southeast side of the lake approximately 3 miles east of Carlyle (see figure 2) and is being developed and operated by the IDNR through a long-term lease agreement with the Corps. The existing facilities include a small camping area, five day-use areas with 120 picnic sites, a picnic shelter, 5 vault toilets, 13 fountain/hydrants, a one-lane boat ramp (not operational), a site residence, a 3-D archery range and a small service area facility (see figure 2).

1.2. Project Need

The problem that now exists at South Shore State Park is that the existing road and parking areas have not been resurfaced in many years and are experiencing base and surface failure. In addition, many of the various visitor parking lots are too large for the resource base and result in unnecessary operation/maintenance costs.

1.3. Project Authorization

Federal Laws provide that land and water areas of Department of the Army reservoirs, constructed for the primary purpose of flood control, navigation, and/or hydropower, shall be administered to encourage and develop all collateral uses such as water supply, public parks and recreation, conservation of fish and wildlife resources, pollution abatement, and other purposes in the public interest.

The Carlyle Lake Master Plan, Design Memorandum No. 10 (Revised 1974, Updated 1979, 1986, 1997) presented a current inventory and assessment of land and water resources and

Figure 1. Vicinity Map for Carlyle Lake.

Figure 2. Vicinity Map for South Shore State Park.

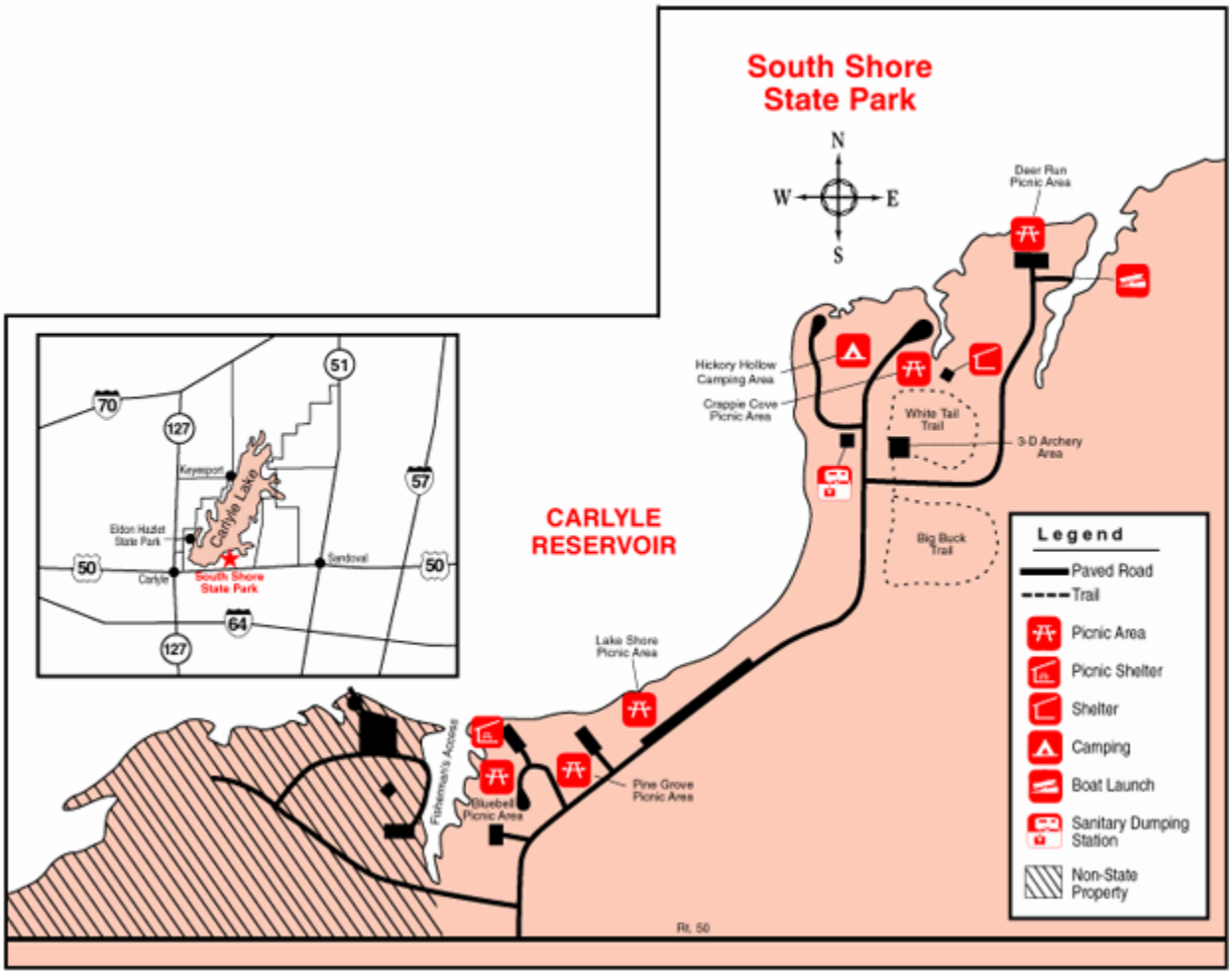


Figure 3. Road Alignment B, Preferred Alternative.

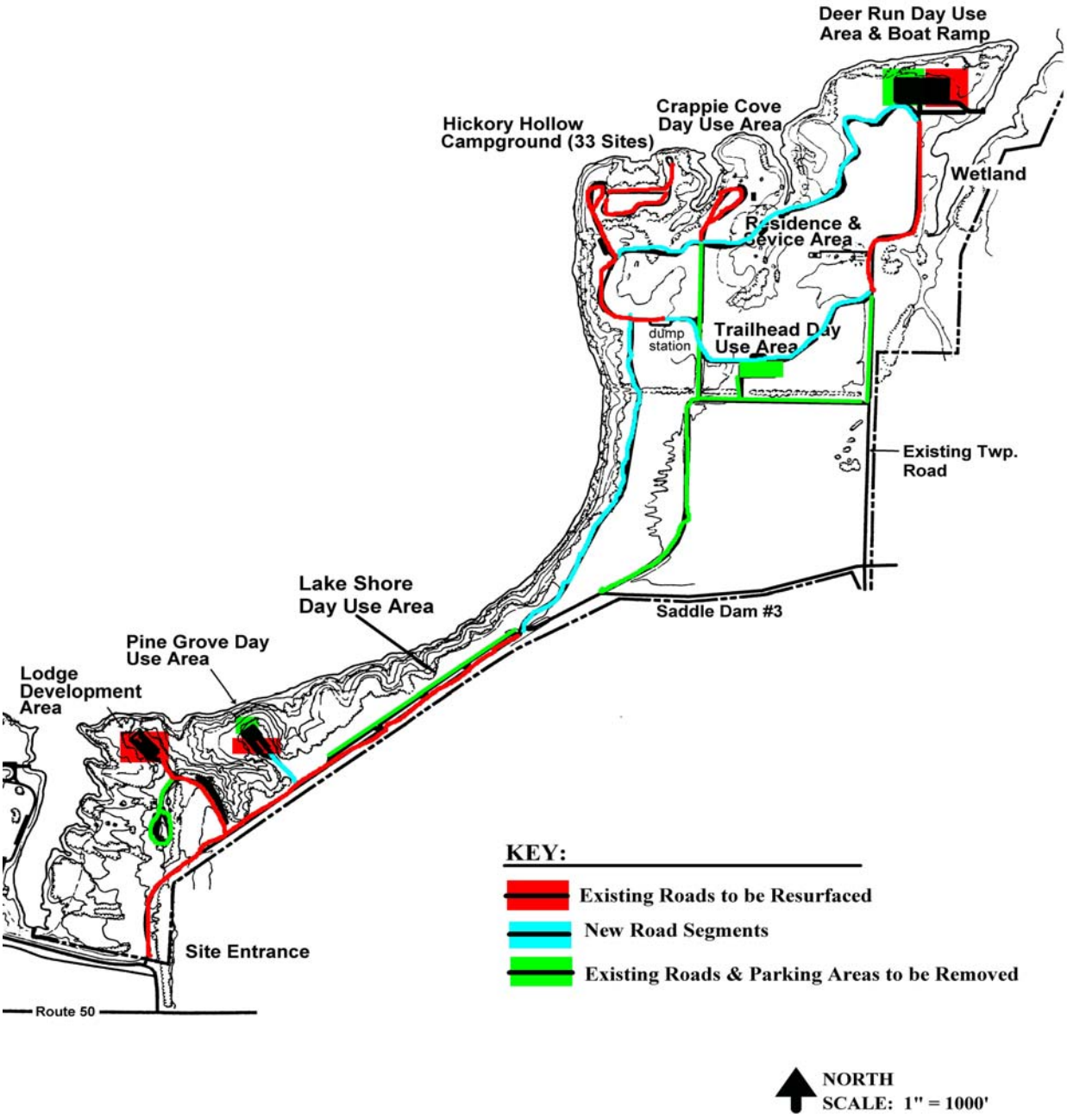
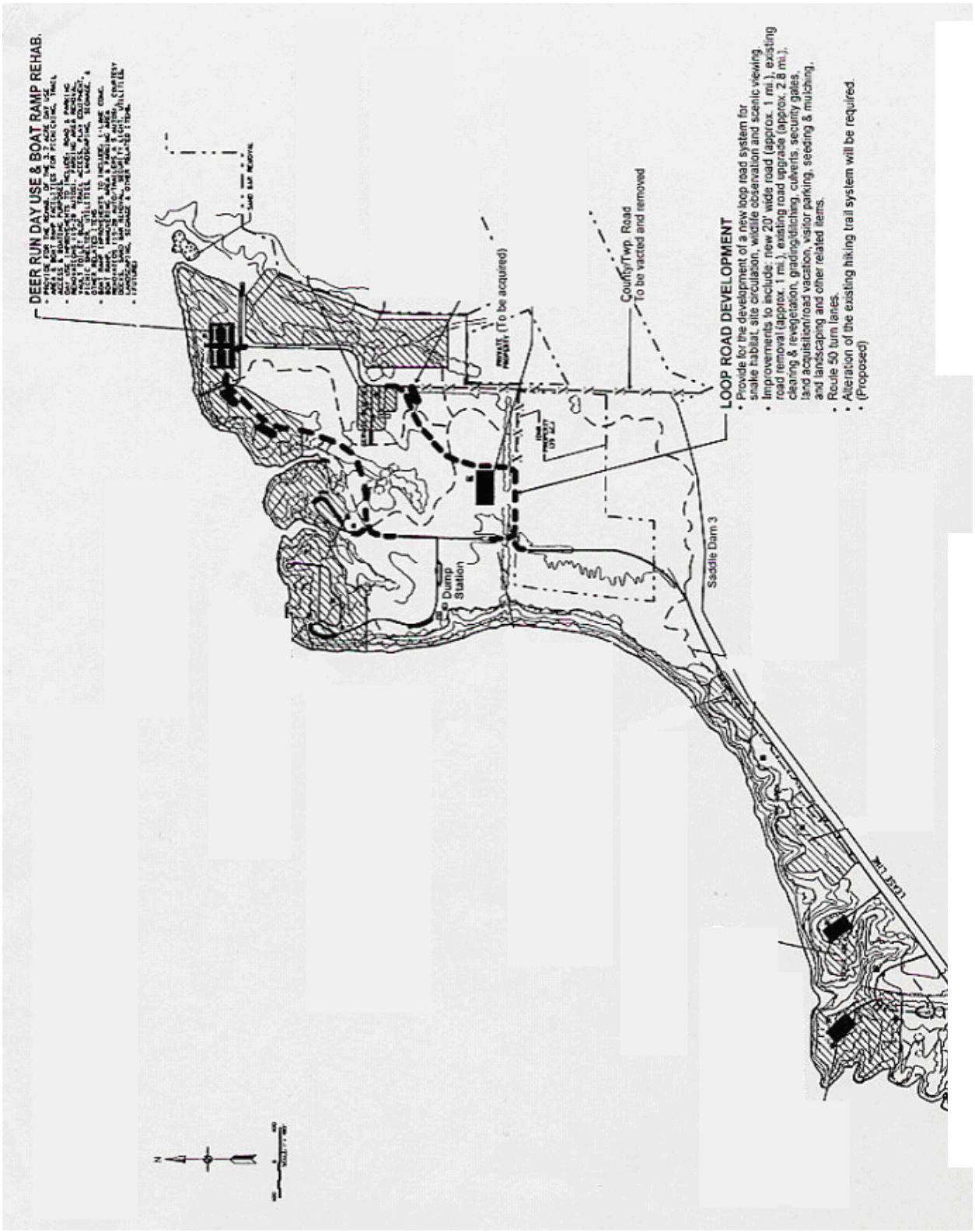


Figure 4. Road Alignment A.



physical improvements, reformulated resource use objectives, discussions of influences on lake operations and management and an evaluation of existing and future needs required to protect the value of the resource base. The latest revision of the Carlyle Lake Master Plan included a scenic loop road development under Section VIII, Resource Plan, for South Shore State Park.

2.0 RECOMMENDED PLAN AND ALTERNATIVES

2.1. RECOMMENDED PLAN

2.1.1. New Road Alignment B (Phase 1 and 2)

This plan (Figure 3) would include realigning a portion of the existing road, a new road loop, new 20-foot wide paved roadway with aggregate shoulders (2-foot wide in the open and 1-foot wide through wooded areas), existing roadway removal, upgrading and resurfacing of all existing use area roadways, existing use area parking lot redesign and paving, pedestrian trail crossings, site grading and ditching, clearing, culverts, metal vehicular gates, concrete wheel stops, striping, seeding and mulching of all disturbed areas, and landscaping. IDNR has chosen New Road Alignment B, as the preferred alternative because:

- it will provide the greatest utilization of the area by the public,
- it provides the best wildlife viewing opportunity,
- it will allow for greater future development of South Shore State Park,
- it provides a more scenic view of the lake,
- it provides greater site security and visitor safety,
- it provides the greatest protection from road mortality for the area's population of eastern massasauga.

2.2. OTHER ALTERNATIVES CONSIDERED

2.2.1. No Action

The "No Action" alternative would not change current conditions. The current road alignment and poor road conditions will remain the same. This alternative is unacceptable because it does not address the current problems or improve the area for use by the public or wildlife.

2.2.2. Pave Existing Road

This plan would improve the current road conditions but would not enhance wildlife viewing, site circulation, scenic viewing, area development, site and visitor safety, or habitat for the Eastern massasauga.

2.2.3. New Road Alignment A

This plan (Figure 4) was the initial proposal for a road loop that was included in the IDNR Five-Year Development Plan for South Shore State Park. This plan included a new road

loop, new 20-foot wide paved roadway with aggregate shoulders (2-foot wide in the open and 1-foot wide through wooded areas), existing roadway and ditch removal, upgrading and resurfacing of all existing use area roadways, existing use area parking lot redesign and paving, Route 50 turn lanes, pedestrian trail crossings, site grading and ditching, clearing, culverts, metal vehicular gates, concrete wheel stops, striping, seeding and mulching of all disturbed areas, and landscaping. This plan does not include relocating the road closer to the shoreline as does the preferred alternative. This plan was not acceptable to IDNR because it did not provide adequate protection for the eastern massasauga.

2.3. COMPARISON OF ALTERNATIVES

A preliminary screening was conducted of the three alternative plans in consideration of four key planning criteria: completeness, effectiveness, efficiency and acceptability. The findings of this evaluation are summarized in Table 1.

TABLE 1. COMPARISON OF ALTERNATIVES

PLAN	COMPLETENESS	EFFECTIVENESS	EFFICIENCY	ACCEPTABILITY
Road Alignment B	Y	Y	Y	Y
No Action	N	N	N	N
Pave Existing Road	N	Y	Y	N
Road Alignment A	Y	Y	Y	N

2.4. DETAILED DESCRIPTION OF THE PROPOSED PLAN

Construction has been divided into two phases. Phase I includes all of the new road construction that is highlighted in blue and all of the road removal that is highlighted in green shown in Figure 3. Phase I will also include the planting of grass and trees in those road and parking lot areas that are abandoned. Phase I also includes the removal of the existing Lake Shore Day Use Area and the conversion of the approximately 7 acres of open area into oak-hickory forest. Phase 2 will include the paving of the existing roads and parking lots in the Bluebell Day Use Area, the Pine Grove Day Use Area, the Hickory Hollow Campground, and the Crappie Cove Day Use Area. Phase 2 will also include the reduction of the parking lot in the Pine Grove Day Use Area and the removal of the south road loop in the Bluebell Day Use Area. Those areas that are abandoned will be planted in grass and trees.

3.0. DESCRIPTION OF ENVIRONMENTAL SETTING AND ANTICIPATED ENVIRONMENTAL IMPACTS OF THE PROPOSED PLAN

The following Section of the EA focus primarily on the recommended plan. However, in certain cases a broader description is included.

3.1. TERRESTRIAL ENVIRONMENT

3.1.1. Physiography-Topography:

Carlyle is situated in the Springfield Plain, a physiographic subunit the Till Plains section of the Central Lowlands physiographic province and is composed of glacial till deposited by the Illinoian glacier around 200,000 years ago. Flat divides of equal elevation between relatively broad, shallow entrenched drainages characterize the plain, particulary east of Carlyle Lake. However, the Springfield Plain also includes areas of somewhat greater relief: bands of linear drift and isolated eroded drift mounds.

The topography of the lake area consists of gently rolling land with alluvial valleys and terraces developed along the Kaskaskia River. The lake area is one of moderately low relief with no significant geologic formations present.

There should be no adverse impacts to physiography or topography. Minor impacts to the topography will result from the construction of the new road sections. Low areas will be filled and ditches will be constructed to deal with runoff. All road construction will be built to IDOT standards and disturbed areas will be seeded and mulched to avoid erosion. The sections of road that are to be abandoned will have the pavement removed and replaced with topsoil.

3.2. AQUATIC ENVIRONMENT

3.2.1. WATER QUALITY

The water of Carlyle Lake and the downstream river channel is generally good. The lake is a very shallow reservoir susceptible to high winds. These conditions prevent the lake from stratifying permanently during the summer months. During extended periods of very calm winds and high air temperatures the population of algae greatly increases. Upon subsequent die off, the dissolved oxygen is severely depressed. When this condition exists, along with minimum downstream discharge, minor fish kills have occurred in the lake and below the dam. Operational changes are then implemented to improve downstream water quality by changing the release source from the sluice gate to the spillway. This change also increases the minimum release from 50 cfs to 100 cfs. The lake appears to be suitable source for drinking water both presently and in the future with the exception of possible taste and odor problems associated with algae.

The project is not expected to adversely impact the water quality.

3.2.2. WETLANDS

According to the National Wetland Inventory map for the South Shore State Park, there are eight wetlands in the area not counting the lake itself. Those wetlands include 4 wetlands for a total of 9.7 acres that are classified as: lacustrine, littoral, unconsolidated shore, and seasonally or intermittently flooded. There are 2 wetlands for a total of 1.1 acres that are classified as: palustrine, unconsolidated bottom, intermittently exposed. There are 2 wetlands for a total of 6.0 acres that are classified as: palustrine, scrub-shrub, broad-leaved deciduous, temporarily flooded.

There will be no construction or associated impacts to the wetland areas.

3.3. AIR ENVIRONMENT

3.3.1. AIR QUALITY

Some dust and fumes would be created during construction but no residents would be adversely affected.

3.3.2. NOISE

Noise would be generated as a result of construction activities but no residents would be adversely affected.

3.4. BIOTIC ENVIRONMENT

3.4.1. TERRESTRIAL WILDLIFE HABITAT

South Shore State Park contains the following terrestrial habitat types or features:

i. roads - 4.9 miles,
ii. recreation/maintenance development - 21.8 acres,
iii. oldfield/autumn olive invasion - 111.0 acres,
iv. oak-hickory forest - 183.7 acres,
v. open areas - 24.9 acres.

This alternative would require that 5.8 acres of oak-hickory forest and 0.96 acres of oldfield/autumn olive invasion, be cleared for the proposed new road alignment. This alternative would also convert approximately 5,372 feet (2.96 acres) of existing road into open areas planted to a mixture of prairie grasses and forbs with a scattering of trees. This alternative also includes the removal of the existing Lake Shore Day Use Area and the conversion of the approximately 7 acres of open area into oak-hickory forest. Renovations at the Deer Run Day Use Area and Boat Ramp would eliminate approximately 1 acre of existing parking lot that will be converted to forest.

3.4.2. TERRESTRIAL WILDLIFE

South Shore State Park contains a variety of species that are common to Illinois upland forested habitat. These species include but not limited to: white-tailed deer, turkey, rabbits, squirrels, opossums, raccoons, various amphibians, reptiles, nesting and migratory birds, and small rodents. Migrating waterfowl, shore birds, and wading birds use the wetlands located in the park.

The net impacts of the road construction on wildlife resources would be minor. The clearing of trees along the road would tend to favor edge species such as rabbits but the removal of existing roads and parking lots will help to off set those impacts.

3.4.3. AQUATIC ORGANISMS AND FISHERY RESOURCES

The only aquatic resource for Shore State Park is Carlyle Lake itself. The fishes of Carlyle Lake and the lake spillway are typical of midwestern waters. Major sport, commercial, and forage species are white and black crappie, bluegill, green sunfish, longear sunfish, yellow and black bullhead, channel and flathead catfish, white and yellow bass, walleye, sauger, largemouth bass, freshwater drum, carp, three species of gar, gizzard shad, brook silversides, red shiner, bullhead minnow, golden shiner, and western mosquitofish. All totaled, there are approximately 50 species of fish and several hybrid fish found in this area.

The waters of the lake and tailwater also have diverse forms of phytoplankton, zooplankton, aquatic insects, crustaceans, amphibians, reptiles and mollusks. All, in one life stage or another, are an integral part of the food chain, necessary to sustain life of lake organisms. Numerous terrestrial forms supplement the food supply of the fishes also, particularly during periods of rainfall or strong winds. Maintenance of good water quality (relatively free of inorganic or organic pollutants) is also necessary for the well being of the diverse aquatic populations. While presently not abundant, several species of semi-aquatic plants (smartweed, arrowhead, willow, buttonbush, reed grass, lotus, cattail) are established and contribute to the aquatic communities as a source of nesting, feeding, and protective cover. Very recently, sparse submerged beds of coontail have become established in some coves protected from wind and wave action.

All proposed construction will be above the Ordinary High Water Mark; therefore there will be no impacts to the aquatic resources of Carlyle Lake and South Shore State Park.

3.5. SOCIO-ECONOMIC RESOURCES

3.5.1. GENERAL SOCIO-ECONOMIC RESOURCES

Carlyle Lake receives approximately 3 million visitors annually. South Shore State Park has not received much development since the State Park was formed. Because of the lack of development, the majority of the visitors are likely to be from the local area. The current main uses of the area are wildlife viewing and other day use activities such as picnics and bank fishing. The 33 camping sites at Hickory Hollow Campground do not have electric or sewer hookups therefore do not receive a lot of use. The closest town to the State Park is Carlyle. A summary of the 2000 census data for Carlyle and Clinton County are in Tables 2 and 3.

Table 2. Population Data from 2000 Census for Carlyle, Illinois.

	Number	Percent
Population		
Total population	3,406	N.A.
Square miles	2.99	N.A.
Population per square mile	1,137.86	N.A.
Gender		
Male	1,602	47.0
Female	1,804	53.0
Age		
15 or younger	642	18.8
16-24	485	14.2
25-44	830	24.4
45-64	724	21.3
65+	725	21.3
Average age	40.97	N.A.
Race and Ethnicity		
White	3,244	95.2
Black or African American	116	3.4
American Indian and Alaska native	8	0.2
Asian	17	0.5
Native Hawaiian and other Pacific islander	1	0.0
Some other race	4	0.1
Two or more races	16	0.5
Hispanic or Latino	28	0.8

Table 3. Income Data from 2000 Census for Clinton County, Illinois.

	Clinton Co.	Illinois
	1999 Dollars	1999 Dollars
Median Household Income by Age		
Median household income	44,618	46,590
Householder under 25	31,765	24,427
Householder 25-34	47,404	46,057
Householder 35-44	55,056	55,877
Householder 45-54	61,432	62,053
Householder 55-64	43,974	52,275
Householder 65-74	31,970	33,419
Householder 75 and older	19,448	23,363
Per Capita Income by Race or Ethnicty		
Per capita income	19,109	23,104
White	19,499	25,952
Black or African American	13,112	14,747
American Indian and Alaska native	12,743	16,428
Asian	11,699	24,137
Native Hawaiian and other Pacific islander	3,900	15,523
Some other race	12,051	11,678
Two or more races	11,481	13,756
Hispanic or Latino	13,203	12,584

The proposed plan will have the greatest positive impact on the socio-economics of South Shore. This alignment will provide a greater scenic view of the lake from the road and will encourage the public to visit the area. This alternative will also minimize the risk of road mortality of the eastern massasauga and allow IDNR to rehabilitate the existing Deer Run boat ramp. Having the availability of a useable boat ramp at South Shore will increase the number of visitors to the area by itself. This alternative will also open up the possibility of future development such as cabins and resort facilities any where west of the proposed road alignment without fear of impacting the eastern massasauga.

3.5.2. AESTHETICS

The positive aspects of the aesthetics of South Shore SP are the result of its close proximity to Carlyle Lake. The existing day use areas of Bluebell, Crappie Cove, and Deer Run provide the public with a place to stop and view the lake. The wooded areas provide the public with a quiet place for a walk and the chance to view the wildlife of the area. The negative aesthetic aspects of the existing conditions at South Shore include the poor road conditions, the inability to see the lake from the road, and the autumn olive thickets that prevent the access and viewing of a significant portion of the area.

The proposed plan will improve the aesthetic quality of the area by providing an improved drive that is void of potholes, in addition to a greater opportunity to view wildlife by driving through a wooded area. The proposed plan will also create a scenic lakeshore drive where the public can view the lake from their cars.

3.6. CULTURAL RESOURCES

As a result of previous investigations, more than 170 sites have been recorded at Carlyle Lake or the immediate vicinity. These sites evidence occupation of the area during all the major prehistoric and historic cultural periods. Specific to the South Shore State Park area, there are approximately 17 know archaeological sites. Of the 14 sites, 10 sites have been determined to be ineligible for inclusion on the National Register of Historic Places, one site has undergone Phase III Testing/mitigation, three sites are under the lake, and three sites have not been determined to be either eligible or ineligible.

The majority of South Shore State Park had been surveyed for cultural resources prior to the initiation of this project. Those areas that had not been surveyed included the north section of the road loop, the Deer Run Day Use Area, and the relocated section of road along the shoreline. Those areas were surveyed and three sites were found (Rickers 2003). The St. Louis District has determined that the three sites are ineligible and that the project would not impact any significant historic properties. The District is awaiting concurrence from the ISHPO.

3.7. CONTAMINANT DETERMINATIONS

South Shore State Park has been leased to IDNR since 1964. Their lease has contained a clause against the storing or disposing of hazardous or toxic on site since 1967. Their lease also stipulates that it is the State's responsibility to abide by any EPA standards and obtain any necessary permits during the operation and maintenance of the site. A search of the State Park's records did not reveal any evidence of a past spill or discharge. The disposal of the used road

material (asphalt/stone) will be the responsibility of the IDNR/IDOT and will be disposed of offsite and not on Federal property.

3.8. SECTION 404 ASSESSMENT

The proposed project will not involve the placement of dredged or fill materials into waters of the United States. All wetlands will be avoided and all construction will be above the ordinary high water mark.

4.0. FEDERAL AND STATE ENDANGERED, THREATENED, AND OTHER RARE SPECIES: BIOLOGICAL ASSESSMENT

4.1. FEDERAL THREATENED AND ENDANGERED SPECIES

In compliance with Section 7(c) of the Endangered Species Act of 1973, as amended, the U.S. Army Corps of Engineers requested the U.S. Fish and Wildlife Service (USFWS) to provide a listing of Federally threatened or endangered species, currently classified or proposed for classification, that may occur in the vicinity of South Shore State Park. In a letter dated January 20, 2004, the USFWS indicated that two listed species (bald eagle and Indiana bat) and one candidate species (eastern massasauga) may occur in the vicinity of the proposed project areas (USFWS 2004), in response to which the following biological assessment was prepared. Section 7 (a)(4) of the Endangered Species Act states that "Each Federal agency shall **confer** with the Secretary on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under section 4 or result in the destruction or adverse modification of critical habitat proposed to be designated for such species. This paragraph does not require a limitation on the commitment of resources as described in subsection (d)." The biological assessment for the eastern massasauga will be addressed under the Section 4.2. State Threatened and Endangered Species. This is because a species listed as a Federal candidate does not impact or restrict a Federal action. The massasauga is however a state endangered species and the proposed project is going to be funded and constructed with state dollars.

4.1.1. BALD EAGLE

The bald eagle is listed as threatened and is known to occur at Carlyle Lake. The bald eagle is a bird of aquatic ecosystems (Marshall and Nickerson 1976). They commonly use large trees adjacent to rivers and lakes as foraging perches, day resting sites, and night roosts. They feed mainly on fish, but muskrats, small mammals, waterbirds, and carrion are also eaten (Christopher 1990).

Carlyle Lake does have a nesting pair of bald eagles but they are located at the north end of the lake and would not be impacted by this project. This project would not be removing any trees that are large enough or located close enough to the shore to be used as perches.

4.1.2. INDIANA BAT

The Indiana bat is listed as endangered. The bats hibernate in caves beginning in mid October and leave those caves in search of summer habitat by late March or April. Summer habitat includes mature trees with rough and/or exfoliating bark in areas with an open under story, that provide roosting and foraging areas (Schwartz and Schwartz 1981).

The project area does not contain any caves used as winter hibernacula. The project area contains very few mature trees. Most of the area is made up of dense early succession trees and scrubs that do not provide summer bat habitat. A field survey has been conducted and there are trees large enough and have exfoliating bark that could be potential nesting trees. These trees will be removed prior to April 1 to avoid impacting an already nesting female.

4.2. STATE THREATENED AND ENDANGERED SPECIES

The Illinois Department of Natural Resources, in a letter dated 9 January 2004, stated that the proposed project area contained both hibernating and foraging habitat for the state endangered eastern massasauga rattlesnake. IDNR states "the proposed project would not significantly impact the population of eastern massasauga at the site and, in effect, have a net positive benefit to the species due to the relocation of the road and the improvement of the quantity and quality of massasauga habitat in the area."

4.2.1. EASTERN MASSASAUGA

The eastern massasauga exhibits a seasonal shift in habitat requirements. From approximately mid-October through mid-May they occupy lowland areas for hibernating and from approximately mid-May through mid-October they occupy a variety of habitat types for foraging. Hibernacula tend to be lowland sites with massasaugas denning alone in crayfish burrows (Seigel 1986; Johnson 1989; Mauger 1993; Ballard 1994; Rennicke 1996). In a study in northeastern Ohio, it was found that massasaugas hibernate in wet crayfish holes at depths below the frost line, and can withstand freezing body temperatures for short periods without harm (Maple and Orr 1968). Mauger (2000, personal communication) found that while massasaugas may not use the same crayfish burrow, they would return to the same general area each fall to overwinter. At Carlyle Lake, Phillips (2001, personal communication) has documented that snakes may occupy a foraging area up to 1 kilometer (0.62 miles) in radius from overwintering sites.

The Corps of Engineers - St. Louis District in cooperation with the IDNR and the U.S. Fish and Wildlife Service have been proactive in the management of the eastern massasauga at Carlyle by creating and implementing a management plan for the species. The plan was finalized and implemented as part of the Lake's Operational Management Plan in 2001. Due to the abundance of eastern massasaugas in South Shore State Park, a detailed analysis of the impacts of each alternative is reviewed below.

a. No Action: This alternative will continue to put the population of eastern massasauga in danger of being killed by passing automobiles. In the past, a number of snakes have been killed on the existing road at South Shore State Park.

b. Pave Existing Road: This alternative will have a greater negative impact on the eastern massasauga than Alternative 1 because of the possible increase in traffic due to the better road conditions.

c. New Loop Road, Alignment A: This alternative will reduce the potential for road kill deaths of the eastern massasauga by eliminating portions of the existing roadway that currently have habitat for the snake on both sides. This road alignment will still have a section that is within eastern massasauga habitat. The possible increase in traffic due to the better road conditions and road loop for improved wildlife viewing will increase the potential for road mortalities along this section. It is difficult to determine if the overall result of this alternative would be positive or negative for the eastern massasauga. It is certain that this alternative is not the best one for the species.

d. New Loop Road, Alignment B (preferred plan): This alternative will provide the greatest benefit to the eastern massasauga because it removes all sections of road that are closest to the known hibernaculum and improves habitat in that area. Removal of existing road segments and providing new road segments farther away from an area of high massasauga concentration will decrease the incidence of road mortality. In addition, the improvement and creation of habitat close to the hibernaculum will benefit the population of snakes. Increased traffic in the State Park should not significantly affect the snake. Future development such as boat ramp rehabilitation, cabins, and resort located west of the proposed road alignment should not increase the probability of road mortality.

5.0. CUMULATIVE EFFECTS

5.1. BIOLOGICAL RESOURCES

Wildlife resource impacts of future development because of the proposed project should be minor provided that the development is restricted to areas that are currently open and used as “day use areas”. The new road alignment should provide adequate protection for the eastern massasauga from increased traffic due to increased area visitation.

5.2. SOCIO-ECONOMIC RESOURCES

In combination with future development such as overnight accommodations, the proposed project should have positive impacts to the area’s socio-economic resources.

5.3. CULTURAL RESOURCES

No adverse cumulative impacts to cultural resources are anticipated. The majority of South Shore State park has been surveyed for cultural resources. Any future development because of the proposed project will avoid any known sites.

6.0. RELATIONSHIP OF PLAN TO ENVIRONMENTAL REQUIREMENTS

Table 4. Relationship of Plan to Environmental Requirements

Environmental Act/Executive Order	Compliance
Bald Eagle Protection Act, 42 USC 4151-4157	FC
Clean Air Act, 42 USC 7401-7542	FC[1]
Clean Water Act, 33 USC 1251-1375	FC[1]
Comprehensive Environmental Response, Compensation, and Liability Act, 42 USC 9601-9675	FC
Endangered Species Act, 16 USC 1531-1543	FC[1]
Farmland Protection Policy Act, 7 USC 4201-4208	FC
Fish and Wildlife Coordination Act, 16 USC 661-666c	PC[1]
Food Security Act of 1985, 7 USC varies	FC
Land and Water Conservation Fund Act, 16 USC 460d-4601	FC
National Environmental Policy Act, 42 USC 4321-4347	PC[2]
National Historic Preservation Act, 16 USC 470 *et seq*.	PC
Noise Pollution and Abatement Act, 42 USC 7691-7642	FC
Resource, Conservation, and Rehabilitation Act, 42 USC 6901-6987	FC
Rivers and Harbors Appropriation Act, 33 USC 401-413	FC
Water Resources Development Acts of 1986 and 1990	FC
Floodplain Management (EO 11988 as amended by EO 12148)	FC
Prevention, Control, and Abatement of Air and Water Pollution at Federal Facilities (EO 11282 as amended by EO's 11288 and 11507)	FC
Protection and Enhancement of Environmental Quality (EO 11991)	FC
Protection and Enhancement of the Cultural Environment (EO 11593)	FC
Protection of Wetlands (EO 11990 as amended by EO 12608)	FC

FC = Full Compliance, PC = Partial Compliance
1. Full compliance will be attained upon cocmpletion of any permitting requirements or coordination with other agencies.
2. Full compliance will be attained upon public review.
Source: U.S. Army Corps of Engineers, St. Louis District.

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Anton, T. G. 2000. Personal communication. Research Associate, Field Museum of Natural History. Chicago, IL.

8.0. ENVIRONMENTAL ASSESSMENT PREPARERS

The St. Louis District staff members responsible for preparing this document are as follows:

Mr. Lynn Neher, Wildlife Biologist
Experience: 6 yrs. Environmental Analysis Branch, 3 yrs. Technical Operations Branch, MVS
Role: EA Coordinator/Environmental Impact Analysis/Endangered Species

Ms. Suzanne Harris, Archaeologist
Experience: 18 yrs. Environmental Planning Branch, MVS
Role: Historic Properties Compliance

9.0. COORDINATION, PUBLIC VIEWS, AND RESPONSES

The St. Louis District has coordinated with the U.S. Fish and Wildlife Service and IDNR during the preparation of this document. A public notice will be published in the local newspapers notifying the public that a copy of the Draft Environmental Assessment and Unsigned FONSI will be posted on the St. Louis District's web page at http://www.mvs.usace.army.mil/ for a 30-day public comment period. All associated letters, comments, and responses will be filed with this document (APPENDIX A). All comments should be sent to:

U.S. Army Corps of Engineers
Attn.: Lynn Neher (CO-T)
1222 Spruce Street
St. Louis, MO 63103

The Draft Environmental Assessment and Unsigned Finding of No Significant Impact was sent to the following elected officials, agencies, organizations, and individuals for review and comment:

Kurt M. Granberg 103 E. Broadway P.O. Box 707 Centralia, IL 62801	Jim Harris, President Carlyle Lake Association 775 Haw Thicket St. Louis, MO 63134
John O. Jones 2929 Broadway Suite 5 Mt. Vernon, IL 62864	Mark Sugar, President Carlyle Chamber of Commerce Mariners Village 1 Resort Drive Carlyle, IL 62231
John M. Shimkus 513 Cannon House Office Building Washington, DC 20515	Kenneth L. Litchfield Illinois Department of Natural Resources One Natural Resources Way Springfield, IL 62702-1271

Richard Durbin 332 Dirksen Senate Office Building Washington, DC 20510	Rex Peterson Illinois Department of Natural Resources 4521 Alton Commerce Parkway Alton, IL 62002
Peter Fitzgerld 555 Dirksen Senate Office Building Washington, DC 20510	Joyce A. Collins U.S. Fish and Wildlife Service 8588 Route 148 Marion, IL 62959
Don Schmitz, Mayor 1090 Marion Carlyle, IL 62231	Matt Meyer Illinois Dept. of Transportation, District 8 Location Studies 1102 Eastport Plaza Drive Collinsville, Illinois 62234

FINDING OF NO SIGNIFICANT IMPACT

SOUTH SHORE STATE PARK INTERNAL AND ACCESS ROAD IMPROVEMENTS CARLYLE LAKE, ILLINOIS

I. I have reviewed and evaluated the documents concerning the proposed Illinois Department of Natural Resources road improvement project at South Shore State Park located at Carlyle Lake in Clinton County, Illinois.

II. As part of this evaluation, I have considered:

a. Existing Resources and Future without Authorized Plan (No Action) Alternative.

b. Impact to Existing Resources with Alternative Plans.

c. Impact to Existing Resources with Recommended Plan (Action Alternative).

III. The possible consequences of these alternatives have been studied for physical, environmental, cultural, social and economic effects, and engineering feasibility. Significant factors evaluated as part of my review included:

a. The proposed project would include realigning a portion of the existing road, a new road loop, new 20-foot wide paved roadway with aggregate shoulders (2-foot wide in the open and 1-foot wide through wooded areas), existing roadway and ditch removal, upgrading and resurfacing of all existing use area roadways, existing use area parking lot redesign and paving, Route 50 turn lanes, pedestrian trail crossings, site grading and ditching, clearing, culverts, metal vehicular gates, concrete wheel stops, striping, seeding and mulching of all disturbed areas, and landscaping.

b. There would be no appreciable degradation to the physical environment (e.g., noise, air quality, and water quality).

c. No impacts to the aquatic organisms in the area are anticipated.

d. Federally listed endangered and threatened species will not be adversely impacted.

e. The net impacts of the road project on wildlife resources would be minor.

f. There would be no adverse impacts to cultural resources.

g. The recommended plan would require that 5.8 acres of oak-hickory forest and 0.96 acres of oldfield/autumn olive invasion, be cleared for the proposed new road alignment. These

impacts would be offset by the conversion of approximately 5,372 feet (2.96 acres) of existing road into open areas planted to a mixture of prairie grasses and forbs with a scattering of trees. The recommended plan would also remove the existing Lake Shore Day Use Area and convert the approximately seven acres of open area into oak-hickory forest. Renovations at the Deer Run Day Use Area and Boat Ramp would eliminate approximately 1 acre of existing parking lot that would be converted to forest.

h. The "no action" alternative was evaluated and determined to be unacceptable since there exists the need for road improvements at South Shore State Park.

IV. Based on my analysis and evaluation of the alternative courses of actions presented in this Environmental Assessment, I have determined that the new road alignment, road loop and associated road maintenance as described in the Recommended Plan will not have significant effects on the quality of the environment. Therefore, no Environmental Impact Statement will be prepared prior to proceeding with this action.

Date

Joseph D. Tyron
Major, U.S. Army
Acting District Engineer

APPENDIX A

COORDINATION

Illinois Department of
Natural Resources
One Natural Resources Way • Springfield, Illinois 62702-1271
http://dnr.state.il.us

Rod R. Blagojevich, Governor
Joel Brunsvold, Director

January 9, 2004

Mr. Lynn N. Neher
U.S. Army Corps of Engineers, St. Louis Branch
1222 Spruce Street
St. Louis, MO 63103-2833

Dear Mr. Neher,

The Department of Natural Resources (DNR) has reviewed the plans for the proposed road improvement project located at South Shore State Park with regards to possible negative impacts to State Threatened or Endangered Species. This area is known to provide both hibernating and foraging habitat for the eastern massasauga rattlesnake *(Sistrurus c. catenatus)* an endangered species in Illinois.

It is significant to note that, with this plan, the existing roadway in the area of the saddle dam will intentionally be moved away from high use areas and known hibernaculum of the massasauga. In addition, several of the sections of road that will be removed have had at least one record of massasaugas found dead on the road. As such, a large advantage of this proposal is that it will eliminate some degree of future road mortality, provide a more contiguous habitat block, and with revegetation of the disturbed areas improve overall habitat.

In addition, the DNR will implement the guidelines given in the Eastern Massasauga Management Plan, Carlyle Lake, Illinois during the construction period. These guidelines will help to insure that the likelihood of individual specimens of the snake being present in the work areas during construction is low.

In consideration of the above, it has been determined that the proposed project would not significantly impact the population of eastern massasauga at the site and, in effect, have a net positive benefit to the species due to the relocation of the road and the improvement of the quantity and quality of massasauga habitat in the area.

If you have any questions, please feel free to call me at (217) 785-5500.

Sincerely,

Kenneth L. Litchfield, Manager
CERP Program, IDNR

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Marion Illinois Suboffice (ES)
8588 Route 148
Marion, IL 62959
(618) 997-3344

January 20, 2004

Mr. Owen D. Dutt
Chief, Environmental Planning Branch
St. Louis District
U.S. Army Corps of Engineers
1222 Spruce Street
St. Louis, Missouri 63103-2833

ATTN: Mr. Lynn Neher

Dear Mr. Dutt:

This is in reference to your January 12, 2004, letter requesting information concerning federally listed threatened and endangered species that may be present in the vicinity of South Shore State Park, located on Carlyle Lake in Clinton County, Illinois. According to the information provided, the Corps of Engineers is working with the Illinois Department of Natural Resources (IDNR) on an internal and access road improvement project for the 305 acre park which is managed by the IDNR under a long-term lease.

The proposed project under evaluation includes an unspecified amount of new 20-foot wide paved roadway with aggregate shoulders, existing roadway and ditch removal, upgrading and resurfacing of all existing use area roadways, existing use area parking lot redesign and paving, route 50 turn lanes, pedestrian trail crossings, site grading and ditching, clearing, culverts, metal vehicular gates, concrete wheel stops, striping, seeding and mulching of all disturbed areas and landscaping.

The following listed species have ranges that include the concerned area:

Classification	Common Name	Scientific Name	Habitat
Endangered	Indiana bat	*Myotis sodalis*	Caves, mines; small stream corridors with well developed riparian woods; upland and bottomland forests
Threatened	Bald eagle	*Haliaeetus leucocephalus*	Winters along large rivers and major reservoirs

There is no designated critical habitat in the project area at this time.

In addition to the above, the eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*), a candidate species, is known to occur in the project area. The eastern massasauga rattlesnake population at Carlyle Lake is one of the largest populations remaining in the United States. It is imperative that this population be protected. We request the Corps of Engineers fully evaluate the impacts of this project on the eastern massasauga rattlesnake. Avoidance and minimization measures should be implemented to reduce any unavoidable adverse impacts. This might include the use of speed bumps on any proposed new roadway and existing roadways.

Thank you for the opportunity to provide this information. Please contact me at 618/997-3344, ext. 340, should you have any questions.

Sincerely,

Joyce A. Collins
Assistant Field Supervisor

cc: IDNR (Kruse, Strole, Tecic, Phillips)
USACE (Wilkins)

DEPARTMENT OF THE ARMY
ST. LOUIS DISTRICT, CORPS OF ENGINEERS
1222 SPRUCE STREET
ST. LOUIS, MISSOURI 63103-2833

REPLY TO
ATTENTION OF:

January 5, 2004

Engineering Division
Curation and Archives
Analysis Branch

Ms. Anne E. Haaker
Deputy State Historic Preservation Officer
Illinois Historic Preservation Agency
1 Old State Capitol Plaza
Springfield, Illinois 62701-1507

Dear Ms. Haaker:

Pursuant to the National Historic Preservation Act, Section 106 (as amended), and its implementing regulation 36 CFR 800, the St. Louis District, U. S. Army Corps of Engineers, hereby notifies the Illinois State Historic Preservation Officer (ISHPO) that it has determined that no effect will occur to significant cultural properties as the result of construction of proposed improvements within the Deer Run Day Use Area parking lot and boat access and of internal roads within South Shore State Park, Carlyle Lake, Clinton County, Illinois (no CERP number) (total 22.7 acres or 9.2 ha). The St. Louis District is coordinating historic-property compliance on these projects on our lands, although the Illinois Department of Natural Resources (IDNR) is planning the project.

Enclosed are two copies of the Archaeological Survey Short Report (ASSR), titled "Phase I Archaeological Survey for Proposed Improvements within Deer Run Day Use Area and Internal Roads, South Shore State Park, Carlyle Lake, Clinton County, Illinois," which was completed by IDNR personnel. Illinois State Museum (ISM) conducted the records search and field survey. Three archaeological sites (11CT515, 11CT516, 11CT517) were recorded. Prehistoric site 11CT515 consisted of only two flakes. Prehistoric site 11CT516 also had few artifacts and was moderately disturbed. Site 11CT517, a late nineteenth to mid-twentieth century houseplace, had been bulldozed and lacked integrity. Based on ISM and IDNR recommendations, the St. Louis District has determined that all three sites are ineligible for listing on the National Register.

The St. Louis District requests your concurrence with our determinations that no significant properties will be affected by the project. Any comments should be sent to me at the address below.

U.S. Army Corps of Engineers
St. Louis District
ATTN: CEMVS-ED-Z (Trimble)
1222 Spruce Street
St. Louis, Missouri 63103-2833

Printed on Recycled Paper

In addition, please send a copy of your comments to Dr. Harold Hassen and Dr. Michael Sheehan at the addresses listed on page seven of the ASSR forms. If you have any questions about this issue, please contact Ms. Suzanne E. Harris, of my staff, at (314) 331-8467 or email Ms. Harris at suzanne.e.harris@mvs02.usace.army.mil.

Sincerely,

Chris Pulkan

for Michael K. Trimble, Ph.D.
Chief, Curation and Archives
Analysis Branch

Enclosure